

h) [0028];

i) [0029];

j) [0030];

(iii) Due to the Examiner objection of the specification (“The specification fails to describe how the device operates in the detailed description of preferred embodiments.”) we would like to delete the paragraph [0032] and add the paragraphs [0033] and [0034] thus improve the description of how the device operates, no new matter was entering.

2. *AMENDMENTS TO THE ABSTRACT.* According to the Examiner advise to review the specifications to rectify any further errors we would like to make corrections in the abstract to be correspond the requirements of 37 CFR § 1.72 for an abstract of the disclosure. No new matter was entering.

3. *AMENDMENTS TO THE DRAWINGS.* Corrected drawing sheets in compliance with 37 CFR 1.121(d) are presented. No new matter was entering.

(i) According to the Examiner note that “the electronic component of claim 2 must be shown or the feature(s) canceled from the claim(s)” we would like to cancel claim 2 and claim 5 (for the same reason) from the claims. No new matter was entering.

(ii) Also, according to the Examiner note regards the reference characters 8, 14 and 21 we would like to make corrections on the corresponding drawings. No new matter was entering.

(iii) According to the Examiner advice to review the drawings to rectify any further errors and to provide the detailed description for clear understanding how the device operates, we would like to make corrections on the corresponding drawings. Such corrections are made in accordance with 37 CFR §§ 1.81 - 1.85 and include additional reference characters (30 and 30A for radial blades shown on the Figs. 2, 6 and 7) and arrows “Air In” and “Air Out” showing cooling air flow directions on the Figs. 1 and 3 - 5. No new matter was entering.

4. *AMENDMENTS TO THE CLAIMS.* According to the Examiner advice to review the specification and the drawing to rectify any further errors and to provide the detailed description for clear understanding how the device operates and in accordance with we would like to make an amendment in the claim 1 to describe clearer the radial impeller with blades shown on

previously presented Figs. 1 - 3 and 5 - 7. No new matter was entering. As mentioned above in the paragraph 3 (i) we also canceled claims 2 and 5.

CLAIMS REJECTIONS - 35USC §112.

All necessary corrections are made in the specification and in the drawings including the Fig. 4 cited by the Examiner.

CLAIMS REJECTIONS - 35USC §§102-103.

According to the US patent No. 6,394,175 (Chen et al.) cited by the Examiner, the cooling fan 160 is not double inlet centrifugal blower, but, differ from our invention, is a regular axial fan with one air movement direction coincided with axis of an axial impeller rotation and comprised only one inlet and one outlet. According to Chen et al. ambient air at the ambient temperature first moves through the heatsink 150 to the cooling fan 160 and then moves over the cooling fins 170, but the temperature of air incoming to the cooling fins 170 is significantly higher then ambient temperature due to heat transferred from the heatsink 150 to cooling air. Therefore, the cooling fins 170 operate significantly less efficient than the heatsink 150.

And more, it is well known, that centrifugal (radial) blower at all other equal conditions supply much more air at higher hydraulic resistance defined by the density of fins-pins structures. It is also well known that cooling efficiency of cooling devices directly depends on: 1) an amount of air supplied to heatsink and 2) cooling air temperature (less air temperature corresponds to more cooling efficiency).

The double inlet centrifugal blower 5 according to our invention provides higher amount of cooling air at the ambient temperature flows through the heatsinks 2 and 3 simultaneously. By these reasons, the double inlet centrifugal blower 5 is principally different from the cooling fan 160 by Chen et al. and provides significant increasing of the cooling efficiency of the cooler according to our invention.

Neither one of the cooling devices cited by the Examiner (US 5,959,837; US 6,625,021; US 6,657,734; US 6,745,824; US 6,779,595; US 6,909,608; US 6,920,045 and US 6,940,717) does not comprise the centrifugal (radial) blower and more particularly, the double inlet centrifugal blower. All of them comprise the axial fan. The principal difference is that the centrifugal

(radial) fan/blower has an air inlet direction coincides with the axis of the impeller rotation while an air outlet direction is perpendicular to said axis. The double inlet centrifugal blower has two air inlet directions coincide with the axis of the impeller rotation and directed towards in respect one to other.

As mentioned above, the axial fan has one inlet and one outlet one way directions coincided with axis of an axial impeller rotation.

We would like to ask you for further consideration of our Patent Application.

Please also find the Change of Correspondence Address Form (PTO/SB/122).

Best regards,

A handwritten signature in black ink, appearing to read 'Edward Lopatinsky', with a long horizontal stroke extending to the left.

Edward Lopatinsky
Vice-President

Enclosed:

1. Amendment to the Specification - 4 pgs.;
2. Amendment to the Abstract - 1 pg.;
3. Amendment to the Drawings - 7 pgs.;
4. Amendment to the Claims - 1 pg.;
5. Statement under 37 CFR 3.73(b) (Form PTO/SB/96) - 1 pg.;
6. A Change of Correspondence Address Form (PTO/SB/122) -1 pg.
7. Transmittal Form (Form PTO/SB/21) - 1 pg.